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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,728	03/21/2006	Osamu Hashida	NNA-240-B	6883
48980	7590	06/10/2010	EXAMINER	
YOUNG BASILE			LAIOS, MARIA J	
3001 WEST BIG BEAVER ROAD			ART UNIT	PAPER NUMBER
SUITE 624				1795
TROY, MI 48084				
		NOTIFICATION DATE	DELIVERY MODE	
		06/10/2010	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@youngbasile.com  
audit@youngbasile.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/572,728	<b>Applicant(s)</b> HASHIDA, OSAMU
	<b>Examiner</b> MARIA J. LAIOS	<b>Art Unit</b> 1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 02 March 2010.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-23 is/are pending in the application.

4a) Of the above claim(s) 14-19 is/are withdrawn from consideration.

5) Claim(s) 10-13 and 20-22 is/are allowed.

6) Claim(s) 1-9 and 23 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. This office action is in response to the amendment filed 2 March 2010. Claims 1-10, 12, 18-20 and 23 are currently amended. Claims 14-22 were previously withdrawn with respect to a restriction requirement filed 14 July 2009. Claims 10-12 were previously indicated as being allowable subject matter.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Battery module having unit cell connected via shaft member and lock member.

***Election/Restrictions***

4. Claims 10-13 directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(b), claims 20-22, directed to the process of making or using the allowable product, previously withdrawn from consideration as a result of a restriction requirement, are hereby rejoined and fully examined for patentability under 37 CFR 1.104. Claims 14-17, directed to the invention(s) of Groups II and III require all the limitations of an allowable product claim, and have NOT been rejoined.

Because a claimed invention previously withdrawn from consideration under 37 CFR 1.142 has been rejoined, **the restriction requirement between groups I and IV as set forth in the Office action mailed on 14 July 2009 is hereby withdrawn.** In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

***Claim Rejections - 35 USC § 102***

5. The claim rejections under 35 USC 102(b) as being anticipated by Descroix et al. (EP 114 667 A2) for claims 1-3, 9, 23 are withdrawn because the independent claim has been amended.

***Claim Rejections - 35 USC § 103***

6. Claims 1-6, 8 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Baker (US 3,844,841) in view of Klink (GB 2 176 929 A).

As to claims 1 and 23, Baker discloses a battery module (10) which forms an item unit for construction of a battery assembly, comprising: a cell unit (12) having a plurality of cells (40); a housing an cover to store the cell unit (14). Baker discloses modular casings (14) with

stacks of cells (40) are nested together (col. 6 lines 10-25). Baker discloses bores (24) in the bosses (22) of the cases (14) (col. 3 lines 5-12). Baker discloses the individual cases are connected with pins (26) but does not disclose a shaft member comprising a length that allows protrusion beyond the housing. Klink discloses cells with terminal pillars extending through the housing and each of the cells (bi cell is shown in figure 7) the terminal pillars and the nut maintains the cells in connection with each other. It would have been obvious to one of ordinary skill in the art to remove the individual pins connecting the individual cell of Baker with longer bolts such as those shown by Klink because this would minimize the amount of connections and still maintain an electrical current connection through the individual cell units. Furthermore modified Baker discloses the means for enclosing the cell and the nut can be in a first position to which allows for the insertion of the cell and once the nut is tightened it is in the locking position.

As to claim 2, Klink discloses a nut (224) to hold together the cells (Figures 4-7); Thus Klink discloses a lock member (nut) provided at the area where the shaft member protrudes beyond the housing to lock the shaft member to the housing.

As to claim 3, Klink further discloses a fastening member provided at the area where the shaft member (bolt) protrudes from the cover wherein the fastening member is fastened to the cover; the washer (225) or nut (224) function in the manner described as the fastening member.

As to claim 4, Klink discloses the nut (224) having a flange which greater than the opening for the bolt (Figure 5).

As to claims 5 and 8, modified Baker discloses a nut and bolt; thus the lock member has a structure that is free to move between a first position where insertion of the lock member into

the through hole of the cell unit and the housing is allowed and a second position where separation of the cell unit and the housing an the cover is prevented (when the nut is fastened tightly to the bolt). The nut under goes rotation with the axis of the bolt.

As to claim 6, modified Baker discloses as the bolt penetrates the individual unit cells it is expected to double as a jig for the formation of the battery module.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baker and Klink as applied to claims 1-6, 8, 23 above, and further in view of Yamaguchi et al. (US 5,639,257).

Modified Baker discloses the battery module as is taught above but does not teach the bolt (lock member) having an elastic displacement in the direction of the axis of the shaft member. Yamaguchi et al. discloses a bolt which includes a ring (44) with engaging pieces (44b). These engaging pieces deform to allow an object to be secured. Therefore it would have been obvious to one of ordinary skill in the art to replace the nut of modified Baker with the ring of Yamaguchi et al. on the bolt of modified Baker because this would allow for an object to be secured.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baker and Klink as applied to claims 1-6, 8, 23 above, and further in view of Rueger (US 2,837,593)

As to claim 9, modified Baker discloses the cases interlock with each other (figure 2) but does not disclose an edge is formed between the housing and cover of the case in a rolled edge. Rueger discloses a cell case for a battery and teaches the formation of a rolled edge between two pieces of a battery cases in order to seal and protect the cell contents (col. 1 lines 65-68). It

would have been obvious to one of ordinary skill in the art at the time of the invention to include the seal of the Rueger to the individual cells of modified Baker because this would seal and protect the contents of the individual unit cell.

*Response to Arguments*

9. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection as necessitated by amendment.

*Conclusion*

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIA J. LAIOS whose telephone number is (571)272-9808. The examiner can normally be reached on 11am-7pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on 571-272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. J. L./  
Examiner, Art Unit 1795

/Dah-Wei D. Yuan/  
Supervisory Patent Examiner, Art Unit 1795